

Condom use by heterosexuals attending a department of GUM: attitudes and behaviour in the light of HIV infection

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SUMMARY The use of condoms to prevent the further spread of human immunodeficiency virus (HIV) infection is one of the main themes of the government's health education campaign against AIDS. A study of the use of and attitudes towards condoms in 222 heterosexual men and women attending a department of genitourinary medicine (GUM) in central London showed that 55% (50/91) to 59% (41/70) of men or women never, and 6% (6/95) to 15% (14/91) always, used condoms with their regular or non-regular sexual partners. No major differences were found in the use of or attitudes to condoms according to age, sex, social class, or civil status. Attitudes towards the use of condoms were generally negative. These attitudes, in combination with the infrequent use of condoms with regular (and even more with non-regular) sexual partners, must be a cause for concern if the further spread of HIV is to be avoided.

The government's health education efforts against AIDS have included a recommendation to use condoms to prevent the further spread of human immunodeficiency virus (HIV). Previous *in vitro* studies have shown that condoms are an effective barrier to HIV,^{1,2} and this finding has been substantiated to some extent *in vivo* by epidemiological studies. For example, the low seroconversion rate reported in people without antibody to HIV who were sexual partners of people with antibody to HIV³ and the low prevalence of HIV infection and other sexually transmitted diseases (STDs) in Danish prostitutes⁴ have both been attributed to the use of condoms. These encouraging findings must be viewed, however, against reports of seroconversion (M A Fischl *et al* third international conference on AIDS, Washington DC, 1987) and pregnancy rates of 0.8 to 4.8 per 100 women years,⁵⁻⁷ despite condom use. Reasons given for condom failure include splitting, slipping off the penis during intercourse, and inadvertent genital contact before use. The frequency with which these occur is not known.

Although evidence exists of an increase in condom

use by homosexual men attending sexually transmitted disease (STD) clinics (J McCusker *et al* third international conference on AIDS, Washington DC, 1987),⁸ no British studies have been published about condom use by young, sexually active, heterosexuals attending these clinics—a main target population if recent and future campaigns against AIDS are to prove successful in reducing further the spread of infection with HIV. We therefore undertook a study of heterosexual men and women to investigate the prevalence of condom use, attitudes to this form of prophylaxis, reported failure rates, and condom availability. The results of this investigation have important consequences for future health education initiatives.

Patients and methods

In February 1987 we asked 115 consecutive heterosexual men and women (n = 230) attending the department of genitourinary medicine (GUM) of the Middlesex Hospital to complete an anonymous questionnaire. One woman and seven men did not answer questionnaires and were therefore excluded from analysis, giving a completion rate of 96.5% (222/230).

Of the 222 attenders, 193 (87%) were British, and 189 (85%) European; three quarters were aged 21–35; 151 (68%) were single; and 84 (78%) of the 108 men and 68 (60%) of the 114 women were from the non-

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manual social classes I-III. Nearly two thirds had had two to 14 (median two) sexual partners in the previous year; the rate of change of sexual partners has been shown to be one of the most important factors in the spread of HIV.⁹

Results

Table 1 shows that 55% (50/91) of men and 57% (52/91) of women had never used condoms with current regular sexual partners and 58% (55/95) of men and 59% (41/70) of women had never used condoms with non-regular sexual partners in the previous year. (Regular sexual partners were defined as people with whom respondents had sexual intercourse on three or more occasions in two months.) Although no significant differences in frequency of condom use were seen between men and women with either regular or non-regular sexual partners, slightly more women than men always used condoms.

No significant differences in frequency of condom use were seen between people in social classes I-III_{nm} and those in social classes III_m-V or between those aged 25 or younger and those aged 26 or older. Single state (single *v* cohabiting or married *v* divorced, separated, or widowed) made no difference to the prevalence of condom use. We found no differences between those who identified themselves as Europeans and those who defined themselves as Afro-Caribbean, Asian, or South East Asian in terms of condom use with regular partners. With non-regular partners, however, eight non-European women used condoms significantly ($p=0.02$) more often than 61 European women. Of all patients who did use condoms, 25.6% identified protection from sexually transmitted diseases as being the primary reason, and the remainder used them primarily for contraception (data not shown).

Table 2 summarises attitudes to condoms. Only 12 men and 12 women liked using condoms, whereas 56 men and 69 women disliked or strongly disliked them; 36 men and 30 women indicated that they had no strong feelings on the subject. Attitudes to condoms

did not vary according to age or civil status, and in relation to social class we were only able to identify indications of a relation between men in lower social classes (III_m-V) and expressions of fewer negative feelings about condoms compared with men in higher social classes I-III_{nm} (data not shown). The greatest differences, however, were between respondents who described their ethnic origin as European and those who described themselves as Afro-Caribbean, Asian, or South East Asian. Non-European men and women expressed fewer negative attitudes than Europeans to condoms. This bears out our finding of greater condom use by non-European women with their non-regular partners (data not shown).

As indicated, most men and women disliked condoms, many strongly. The most common reasons given by both men and women for disliking condoms were reduced sensitivity leading to diminished sexual pleasure (27 men, 34 women) and loss of spontaneity with interruption of sexual intercourse (16 men, 27 women). Other reasons included "discomfort" (two men, five women), unpleasant smell (three men), and "too messy" (two men, six women). Only two women mentioned concern regarding possible failure and subsequent pregnancy risk.

Table 3 shows the frequency of condoms splitting or slipping off the penis during vaginal intercourse. Almost 40% (64/165) of men and women had experienced condoms splitting on one or more occasions. Over 40% (22/51) of men and 50% (29/57) of women reported that a condom had slipped off on one or more occasions.

Over 90% (92/102, 90.2% men; 101/109, 92.7% women) thought that condoms were easily available, but many suggested that supermarkets, newsagents, and women's lavatories should sell them and 40% of men and 34% of women reported they would use condoms more often if they were more easily available. Feelings of embarrassment were reported by 39% of women and 40% of men who had bought condoms, and of these 25% and 40%, respectively, were inhibited from buying condoms because of this embarrassment.

Table 1 Condom use by 108 men and 114 women attending a GUM clinic

Frequency of condom use	No (%) of men:		No (%) of women:	
	With regular* sexual partner (n = 91)	With non-regular sexual partners in previous year (n = 95)	With regular* sexual partner (n = 91)	With non-regular sexual partners in previous year (n = 70)
Never	50 (54.9)	55 (57.9)	52 (57.1)	41 (58.6)
Some or most times	34 (37.4)	34 (35.8)	25 (27.5)	22 (31.4)
Always	7 (7.7)	6 (6.3)	14 (15.4)	7 (10.0)

*Regular sexual partner defined as one with whom sexual intercourse had occurred on three or more occasions in two months.

Table 2 *Attitudes to condom use*

	<i>Like</i>	<i>No strong feelings</i>	<i>Dislike</i>	<i>Strong dislike</i>
Men (n = 106) (no response from 2)	12	38	39	17
Women (n = 111) (no response from 3)	12	30	50	19

Table 3 *Incidence of condom failures (splitting or slipping off the penis) (figures are numbers (percentages) of men or women reporting failure)*

	<i>Never</i>	<i>Once</i>	<i>Two or more occasions</i>
Splitting:			
Men (n = 84) (no response from 24)	51 (60.7)	14 (16.7)	19 (22.6)
Women (n = 81) (no response from 33)	50 (61.7)	18 (22.2)	13 (16.1)
Slipping off penis:			
Men (n = 51) (no response from 57)	29 (56.9)	13 (25.5)	9 (17.7)
Women (n = 57) (no response from 57)	28 (49.1)	13 (22.8)	16 (28.1)

Discussion

Laboratory studies have shown that condoms act as an effective barrier to HIV, but little information is available about general attitudes towards using condoms, how often they are used, and the practical difficulties commonly encountered in their use.

Our study group comprised only STD clinic attenders and was therefore not truly representative of the general population. They were, however, a young sexually active group and thus provide important information of particular relevance to the present health education campaigns regarding HIV infection.

Family planning clinic records show that in 1977–80 there was about a 32% increase in condom use,¹⁰ and the 1983 General Household Survey (GHS) found that 17% of married couples used condoms as their main form of contraception. As over two thirds of our study population were single, direct comparison with the GHS was not possible. We did find, however, that 15% of women and 8% of men reported always using a condom with their regular sexual partner. After the government AIDS education campaign at the end of 1986 condom use with non-regular sexual partners would have been expected to be high. We detected no appreciable difference, however, in the use of condoms with regular compared with non-regular sexual partners, and the finding that 58% of men and women never used a condom with non-regular partners of some concern.

A major reason given for disliking condoms was the interruption of foreplay and sexual intercourse. This may appear to be an unavoidable problem, as the erect penis should be sheathed with the condom just before coitus. With correct instruction, however, condom placement can be incorporated into foreplay. Describing such techniques in packs of condoms could improve condom acceptability. Reduced sensitivity leading to diminished sexual pleasure was also often mentioned as a reason for disliking condoms. Condom manufacturers seem to be aware of this problem as terms such as "super thin" and "ultra sensitive" are commonly seen in advertising material. Thinner condoms are less strong than those of regular thickness, but would nevertheless meet the requirements set down by the British Standards Institute specifications. It was therefore disconcerting to find that 40% of men and women reported condoms splitting on one or more occasion. We were unable to ascertain whether there was a particular cause for this or whether it was associated with a particular make of condom. Of equal concern is the high rate at which condoms were reported to slip off the penis. This problem may be overcome by the use of a longer condom, the use of spermicides as lubricants in some circumstances, and by adequate instructions about how to withdraw from the vagina while holding the condom on the penis immediately after ejaculation.

Although 90% of patients thought that condoms were easily available, many suggested that availability could be improved by promoting sales in supermarkets and newsagents and with vending machines in women's lavatories; 40% were embarrassed to buy condoms, and a surprising number reported that this had prevented their use. Thus any sales method that reduces potential embarrassment may increase the use of condoms by some people.

Only just over a quarter of our patients reported having used condoms as a protection against sexually transmitted infections; this indicates that condoms are seen primarily as a means of contraception. Greater emphasis should therefore be placed on the protective effects of the condom, not only regarding HIV infection but to STD in general. Previous studies have shown that condoms are effective barriers against herpes simplex virus type 2 (L Smith *et al* first sexually transmitted diseases world congress, San Juan, Puerto Rico, 1981 and F N Judson *et al* fifth international meeting of the International Society for Sexually Transmitted Diseases Research (ISSTD), Seattle, USA, 1983),¹¹ cytomegalovirus,¹² and *Chlamydia trachomatis* (F N Judson *et al* fifth international meeting of the ISSTD, Seattle, USA, 1983). As chlamydial infection has a significant role in tubal infertility,^{13,14} promoting condoms to prevent the transmission of this organism is also of great importance.

We would also draw the attention of health educators and the manufacturers of condoms to our finding that nearly a third of our respondents had "no strong feelings" on this subject, which indicates that a large market for this product exists potentially if a positive image could be encouraged by health education and marketing.

The high prevalence of HIV infection in homosexual men and intravenous drug users has led to the suggestion that it is merely a matter of time before the heterosexual population experiences an epidemic of this life threatening disease.^{15 16} The government's health education campaign has therefore emphasised two primary means of reducing personal risk of HIV infection—by having fewer sexual partners, and by using condoms. The heterosexual population at risk of acquiring STD, which attends genitourinary medicine clinics, is a group to whom these messages must be firmly targetted. Two thirds of our patients had each had a median of two sexual partners in the year before completing the questionnaire (February 1986 to February 1987) during which time the government began its campaign, and few used condoms all the time with their regular or non-regular partners. Though we are unable to report on whether there has been any fall in the number of sexual partners or increase in condom use as a result of this campaign, the infrequent use of condoms that we identified and the negative attitudes towards them indicate that further efforts are clearly needed if HIV is not to spread further in the population. In the absence of a cure or vaccine for AIDS, changing sexual behaviour remains the only strategy available to all those who are concerned with this aspect of the public health.

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